

**MEMORANDUM**

To: RI PUC Commissioners  
From: Gregory L. Booth, PLLC, on behalf of the DPUC  
Date: March 19, 2021  
Subject: Docket No. 5098 Post Hearing Memorandum

---

The Division requested that I prepare a memorandum to clarify two issues which we believe are confused on the record. These are the budgets, rationale and specificity associated with the COVID-Work and DER. The questions and comments on these topics during the hearing could be interpreted to suggest that the National Grid ("Company") lacked justification to advance certain projects and was seeking approval for regulatory protection only. Since that is not the case, the Division felt it was appropriate to clarify the record for the benefit of the Commission.

**COVID-WORK**

National Grid included \$2,000,000 of capital upgrades in its initial proposed budget filed October 2, 2020 for system improvements identified during its feeder analysis to evaluate potential concerns associated with the load changes arising from COVID 19 work pattern adjustments. The Company completed a detailed modeling of all 195 feeders and analysis of the power flow results from this modeling. This was the first time the Company had completed this level of detailed feeder modeling and analysis.

The modeling results revealed two predominate categories of system issues. First, loading changes which would cause protective equipment, such as fuses and circuit reclosers, to trip due to overload causing unnecessary outages. In addition, loading changes would also contribute to some distribution transformer overload conditions and voltage conditions. Solutions to resolve this first category of system issues consisted of relatively small and widely dispersed projects that could be addressed through phase balancing and equipment changes. Second, the Company identified thermally overloaded distribution line sections. These overload conditions, although identified during the COVID assessment process, were actually the result of extreme weather (recurring hot summer conditions) which created load exceeding the thermal design limits on conductors. These were thermal conditions not previously known to the Company which were not directly COVID related, but were identified as a result of the COVID analysis.

To resolve the system issues, the Company identified preliminary solutions and a high-level estimated cost to support proposed projects in the upcoming FY 2022 ISR Plan. The Company included a preliminary budget of \$2,000,000 for COVID-Work in the ISR Plan filing while it completed all COVID analysis and finalized project estimates. As a result of the compressed timeline in the ISR Plan process, the Division tentatively accepted the \$2,000,000 budget with the caveat that before the hearing the Company would have its final solution to solve the thermal overload conditions. The Company shared the specifics of its solutions on February 12, 2021. The solutions were consistent with the original preliminary assessment and the \$2,000,000 budget remained. Therefore, the COVID-Work category and \$2,000,000 budget was based on very specific analysis and project detail, and was not simply a placeholder. The Division, as it has for most of the ISR Plan proposed budgets, retained its right to request further clarification and detail which was subsequently

March 19, 2021

provided by Company. Therefore, the Commission's potential approval of the spending in this category would be based on specific projects, cost, and defined rationale. Although the work is similar to projects that the Company would implement as a normal course of business in maintaining system reliability, the Company proposed the spend in a separate category since the projects were driven by unique load conditions. This process is consistent with the Division's expectation that new categories of spend be brought forth in ISR Plan discussions and fully justified before implementation.

### **Distributed Energy Resources ("DER")**

The Company, in its initial proposed ISR Plan budget, proposed \$5,400,000 for strategic DER projects to manage high levels of solar generation. The Company provided the Division with its detailed analysis and the specific projects, rationale and budgets for both the Chopmist and Hopkins Hill Substation feeders. The projects included engineering, feeder monitoring equipment, and specific system improvements which directly correlate with grid modernization equipment advancements. The Company indicated that feeder issues were occurring at Chopmist and Hopkins Hill, but could not confirm the severity, frequency or duration. During the Division's assessment and consultation process with the Company, we determined the Company's assumptions on reliability risk exceeded the Division's conclusions, and that grid modernization deployment was not justified in advance of the Company's GMP Plan filing or approval by the Commission.

The Division and the Company ultimately came to an agreed deployment process for the specific solution and budget. The Company would first complete the detailed engineering for future system improvements at Chopmist, the priority substation. With engineering completed, the Company would be in a ready position to implement projects should future small DER facilities cause anticipated system reliability issues. It was determined that the actual work could be deferred without jeopardizing safety or reliability. The Company would also advance feeder monitoring projects at both Chopmist and Hopkins Hill to provide better insight on system performance and potential reliability degradation. The budget for engineering and feeder monitoring is \$650,000. A second funding category budgeted at \$2,050,000 is reserved should the Company need to advance grid modernization related projects at Chopmist in FY 2022 based on system performance results. Ideally, the improvements would not be implemented until the GMP Plan is fully vetted, but the Company would have the latitude to take necessary action to maintain reliability. This results in a total budget of \$2,700,000 for DER enablement. Again, this is not a placeholder but rather a prudent staging of spending for specifically identified solutions that correlate with a separate, as of yet unapproved GMP. If the Commission approves this budget category of spending, it is approving dollars for a very specific purpose.

While the Division agreed there may be a possibility the Company would need to advance system improvements to manage DER before the GMP proceeds through the regulatory process, it was determined prudent to defer major work as long as possible with the hope there was a clearer GMP direction. Similar to projects that advance based on the probability of hotter than normal weather occurring, the DER installations have a probability of occurrence. There is a difference between the probability of projects for extreme weather and projects for DER installation. With the weather there is no lead time or reaction time, thus if the system is not prepared there is a high probability of equipment damage, failure and extended outages. Whereas, with DER installations, the Company administers a known application process and installation timeline which allows adequate time for the Company to react and make the necessary system modifications to accommodate what would

March 19, 2021

become unacceptable deficiencies. Thus, the strategic DER emerging issues budget, absent the phasing of the projects we agreed to with the Company, would be the installation of all the specific equipment for the needed anticipated DER solutions.

**Alternatives**

My Testimony and Report addressed alternatives including curtailment, short-term relaxation of voltage standards, active control of DER, battery storage additions, and other potential Non-Wires Alternatives to capital project spending. While the Division and Company have a somewhat different view on some of these alternative solutions, these should all remain options to be analyzed by the Company and pursued through the regulatory process. That does not mean that a specific budgetary solution should be removed from the ISR Plan. The Company has an obligation to address the safety and reliability issues which arise, and it has historically done so irrespective of the ISR Plan budget. However, that does not change the Statutory ISR Plan process and need for a reasonable and prudent budget recognizing that the unknown does occur from time to time.

The Division appreciates the opportunity to submit this expanded discussion on two subjects addressed at the hearing in order, hopefully, to increase the clarity in both the COVID-Work and DER budget proposals.

glb/sk